

# **Exam Title: Tech Studies 8600510**

## **Courses Assessed by this Exam: Tech Studies**

### **Key Vocabulary:**

Computing, communications, communication systems, design, construction, computer program development cycle, development team, democratic process, trade-off, primary materials, productivity, economy, computerization, prototype, client, prototype, assessment technique, infrastructure, technological development, technological innovation, technological system, electrical technology, biotechnology, nanotechnology, energy efficiency, value, waste reduction, mechanical science, robotics, types of energy, renewable energy resource, adoption, improvement, quality control, application, ethical considerations, current market forces, supply, demand, profit, design proposal, criteria, constraints, web page, design, code, bug, debug, software defect, data chip implant, smart power strip, vampire energy use, technotrash, blog, VOIP, Bluetooth, modem, encoder, receiver, source, transmitter, synthetic material, non-durable product, bandwidth, encryption, memory, recursion, Industrial Revolution, Information Age, Stone Age, Iron Age,

### **Student Tasks:**

- Understand technological advances and their effects
- Demonstrate knowledge of factors of technological advancements
- Demonstrate knowledge of technological systems
- Demonstrate knowledge of current market forces
- Understand energy and its importance in technology and product design
- Demonstrate knowledge of the computer program development cycle
- Apply the quality control process
- Identify innovations in mechanical science and technology
- Understand major time periods in history and their effects on technological development
- Understand ethical considerations in regards to technological advancement
- Understand the relationship between politics and technology
- Draw connections between cultures' needs and technological advances
- Understand the concept of trade-off and apply to real-world situations
- Utilize the design proposal and production process
- Understand the effects of technological advanced on the environment
- Identify benefits and drawbacks of robotics use
- Identify types of energy and each type's usage
- Identify renewable energy sources
- Identify components of communication systems
- Identify synthetic materials
- Identify non-durable products
- Define infrastructure